

acid ((iv) and optionally more water or alcohol), carbamazepine can be formed in a **single step**. Acklin not only does not evidence any awareness of this possibility, but even teaches expressly away from it by calling it an impossibility, because at the outset (page 3, lines 2-4 of the translation) Acklin already concludes, that "it is known that imino stilbene together with alkyl isocyanide [sic] does not react to the corresponding 1,5-dibenzo[b,f,]azepine [sic]-5-(N-alkyl)carboxyl[sic] amides"

Therefore, when Acklin talks about its single step reaction, that single step is **not between (i) iminostilbene with (ii) an alkyl cyanate, (iii) in the presence of aqueous acetic acid ((iv) and optionally more water or alcohol)**, but rather of monomeric HNCO and iminostilbene in the presence of acetic acid. To be sure, in a **two-step version of Acklin's process** there is iminostilbene and an alkali cyanate present, but then in the first step initially the monomeric HNCO is formed by the use of an acid that has to be stronger than acetic acid. It is made clear in Acklin that in fact, in this initial, first step of the gross reaction series of Acklin, **neither water nor alcohol may even be present**, because (as stated on page 3, line 3 from bottom, to page 4, line 1 of the Acklin translation) "[C]yanuric acid [sic] in free form is not stable. It enters a number of polymerization and auto condensation reactions and in addition it **adds easily to water, alcohols**" Therefore, Acklin clearly (and correctly) states its view that the monomeric HCNO that it requires for its second, the last reaction step, cannot be formed under the conditions required by the instant claims. Thus the use of an aqueous or alcoholic (or both) medium, as is expressly required by the present claims, would make it impossible to have the monomeric HNCO available which is indispensable in Acklin to carry out its first reaction step.

All of that also makes it exceedingly clear that the process of the present invention which Acklin expressly suggested would be impossible, is a uniquely different single step process than that of the two step process of Acklin.

It is noted that the examiner does not cite the US Acklin patent as the basis of any rejection, but rather makes the frequently inaccurate English translation of the German language European patent as the reference of record. Claim 14 of Acklin EP 277,095 is not correctly translated in the translation supplied by the PTO. In the original German text term "*saures Mittel*" is erroneously represented in the translation of the claim as "acidic acid," whereas elsewhere in the translation the same term is translated as "acidic agent." The latter term is introduced in Acklin EP 277,095 on page 6 of the translation and it refers to the acidic accelerant for the reaction. Thus claim 14 merely states that which is also stated in the disclosure that the acidic accelerant can be the same acetic acid that can also be used as the solvent. Therefore, the strong acid that has to be a stronger acid than acetic acid, is still required in the first step of Acklin's two step reaction, and claim 14 of Acklin does not change that fact.

The rejection in numbered paragraph 7 of the outstanding Office letter refers to "paragraphs 2 and 3" of the translation. Those parts discuss only the preferred ingredient, the solvent (also erroneously translated as "solutions" rather than as -- solvent--), but those parts of the translation do not mention anywhere the essential strong acid reaction partner of Acklin's reaction, which is discussed on page 5, in the second full paragraph of the translation. There it is stated that several protonic acids can be employed "the acid strengths of which is sufficient to liberate cyanuric acid [*sic*] from its salts." Suitable acids are defined as "the acid strengths in the solvent corresponds practically at least to that of formic acid." This abundantly clearly establishes that any acid that is less strong than formic acid, such as acetic acid, will be insufficient to liberate the monomeric HNCO *in situ*. The above quote from the German text of Acklin which corresponds exactly to the underlined part of the US patent of Acklin which was not cited, but which was quoted in the previous response, but was ignored in the present Office letter, as not having been cited. This acid which is stronger than acetic acid, is required in Acklin in addition to the acidic agent or solvent, the two latter of which may be the same acetic acid, but not the former which has to be an acid stronger than acetic acid.

Examples 9 and 10 represent the second step of Acklin's 2-step process when it starts in the first step with an alkali cyanate and iminostilbene. In that second step described in Examples 9 and 10, monomeric HNCO (presumably liberated from the alkali cyanate with the stronger acid than acetic acid, this monomeric HNCO such as is formed in the first step, is reacted in the acetic acid solvent to form the end product. Therefore, in Examples 9 and 10 no alkali cyanate is employed, as it is required by the claims of the present application. Thus the Examples 9 and 10 of Acklin, as in fact no part of Acklin, has any relationship whatsoever to the process claimed in the present application which -in contrast with Acklin- is a single step process wherein (i) iminostilbene is reacted (ii) with an alkali cyanate (iii) in the presence of acetic acid as the sole acid that is employed in the reaction.

Irrespective of whether or not the formation of monomeric HNCO *in situ* is obvious or not, Acklin makes it abundantly clear that monomeric HNCO can be formed from its salts only by using an acid that is a stronger acid than acetic acid which is the sole acid employed in the present claims. The examiner's statement that Acklin discloses acetic acid as the sole acid holds true only if monomeric HNCO and no alkali cyanate is involved in the reaction. Therefore, Acklin discloses the use of acetic acid as the sole acid, when the stronger acid is no longer required, because in that case not an alkali cyanate, but monomeric HNCO is being used by Acklin.

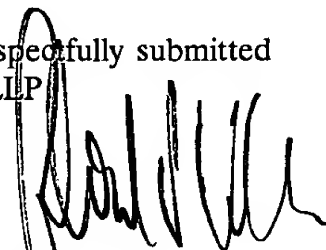
As already explained above, the mere fact that while the process of the present invention can be carried out in the presence of water or alcohol (or both), is further evidence that Acklin has not realized the possibility of the herein claimed reaction.

Therefore, it is abundantly clear that Acklin is not applicable against the present claims and, therefore, the reconsideration of the outstanding rejection and the allowance of claims 2-8 is respectfully urged.

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Respectfully submitted



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